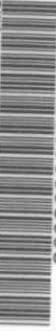


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STANDARDS DEVELOPMENT BRANCH OFFICE



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ONTARIO WATER RESOURCES COMMISSION

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HON. JOHN P. ROBARTS, Q.C.,
London
Minister Without Portfolio
(Appointed to Commission Dec. 22, 1958)



Introducing

THE ONTARIO WATER RESOURCES COMMISSION

In 1955, recognizing the increasing problems surrounding the availability of adequate and safe water supply and the effects of pollution on many of these waters, the Ontario Government set up a committee to investigate water supply and disposal of sanitary and industrial wastes. This was followed in 1956 by the creation of the Ontario Water Resources Commission.

At the 1957 session of the Legislature the scope of the Commission was widened considerably, and it began functioning with a program designed to deal effectively with water supplies and wastes disposal. Subsequent amendments tightened and streamlined the legislation.

The Commission is made up of three to five members, including a chairman, appointed by the Lieutenant-Governor in Council. There is a secretary and an administrative set-up.

To carry out its program the Commission employs a staff headed by a general manager who also is its chief engineer. Capable professional personnel attend to all details concerning water and water pollution, sewage and its proper disposal, availability of ground waters, construction of water and sewage works and disposal of industrial wastes. Many are almost continually in the field inspecting, testing and advising.

There is an experienced laboratory staff engaged in water testing and examination of sewage and waste specimens and in research.



Chairman
A. M. SNIDER
Waterloo

MEET THE COMMISSIONERS



W. D. CONKLIN, Q.C.
Kingsville



R. M. SIMPSON
Arnprior



J. A. VANCE
Woodstock



DR. A. E. BERRY
General Manager and Chief Engineer



BRIAN LARMOUR
Commission Secretary

ADEQUATE WATERS

for Ontario

The provision of an environment which will promote the best living conditions for all should be—in fact must be—the objective of everyone.

Such an objective involves, among other things, the safeguarding of health, good general sanitary conditions, safe and adequate water supplies and acceptable means for disposal of sewage and industrial wastes so that receiving streams will not become polluted.

Any program designed to reach such an objective must be most comprehensive, and calls for co-operative effort by provincial and municipal authorities and the citizens at large.

Problems encountered in the attainment of such an objective have faced authorities for many years, with the situation by no means helped by increasing costs of material and labor and high interest rates. Further aggravation came from mushrooming growth of many towns, cities and new communities.

In the creation of the desired environment water supplies are a major factor. Little progress can be made if water is either inadequate or of unsatisfactory quality. As the population grows the need for water in all phases of personal, communal and industrial life becomes increasingly important. With water in short supply expansion becomes impossible and human welfare suffers accordingly.

Water supplies and waste disposal are closely linked. They both should be dealt with in any program designed to attain the environment desired by all.

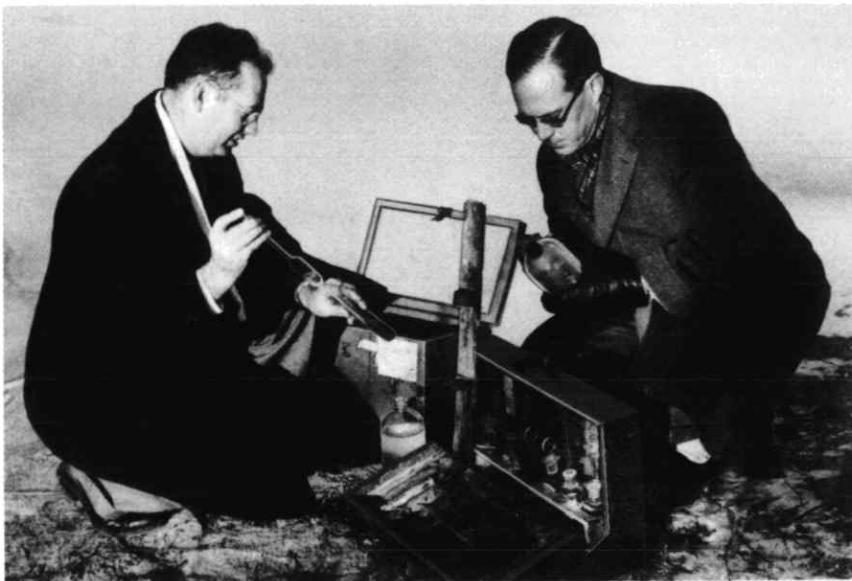


This is where the Ontario Water Resources Commission comes in. The Commission is thoroughly appreciative of the needs and of the practical problems to be overcome in meeting those needs. It has definite objectives in mind—objectives which are designed to assist municipalities in solving difficulties arising from the need for water supplies and the disposal of sewage and other wastes.

The Water Commission's objectives are twofold in nature. One is to ensure maintenance of public water supplies in a safe condition for domestic consumption and for other uses—and this, naturally, includes proper treatment of sanitary and industrial wastes before they are discharged into streams or lakes.

The second objective is to make it possible for municipalities to finance modern water and sewage treatment works. The Commission program has been designed to aid in the construction and financing of these works for any municipality or for any area in which there is a need.

Involved in the reaching of Commission objectives is a huge program. At the time the Ontario Water Resources Commission Act, 1957, came into being following approval of Bill 164 by the Legislature it was estimated that 2.4 billion dollars from all sources would be required over a 20-year period to meet water and sewage works requirements of the Province.



HOW THE COMMISSION

REACHES ITS OBJECTIVES

The Ontario Water Resources Commission Act, 1957, subsequently amended gives the Commission wide powers to reach its objectives.

For instance, Section 16 of the Act reads as follows:

- “(1) Notwithstanding any other Act, it is the function of the Commission and it has power,
 - “(a) to control and regulate the collection, production, treatment, storage, transmission, distribution and use of water for public purposes and to make orders with respect thereto;
 - “(b) to construct, acquire, provide, operate and maintain water works and to develop and make available supplies of water to municipalities and persons;
 - “(c) to construct, acquire, provide, operate and maintain sewage works and to receive, treat and dispose of sewage delivered by municipalities and persons;
 - “(d) to make agreements with any one or more municipalities or persons with respect to a supply of water or the reception, treatment and disposal of sewage;
 - “(e) to conduct research programs and to prepare statistics for its purposes; and
 - “(f) to perform such other functions or discharge such other duties as may be assigned to it from time to time by the Lieutenant-Governor in Council.
- “(2) Every person who contravenes or fails to comply with any order made under clause (a) of subsection 1 is guilty of an offence and on summary conviction is liable to a fine of not more than \$100 for every day or part thereof during which such contravention or failure continues.”

Supervision over all waters is given the Commission by Section 26, subsections (1) and (1a) of the Act which reads:

- “(1) The Commission has the supervision of all surface waters and ground waters in Ontario used as a source of water supply.
- “(1a) The Commission may examine any surface waters or ground waters in Ontario from time to time to determine what, if any, pollution exists and the causes thereof.”

In regard to sewage works, the Act says in Section 37:

“Sewage works shall at all times be maintained, kept in repair and operated in such manner and with such facilities as may be directed from time to time by the Commission.”

Section 27 of the Act contains an instance of legislative “teeth” to help the Commission in its anti-pollution crusade. It reads:

“(1) Every municipality or person that discharges or deposits any material of any kind into or in any well, lake, river, pond, spring, stream, reservoir or other water or watercourse, or on any shore or bank thereof or into or in any place that may impair the quality of the water of such well, lake, river, pond, spring, stream, reservoir or other water or watercourse is guilty of an offence and on summary conviction is liable to a penalty of not more than \$1,000 or to imprisonment for a term of not more than one year, or to both.”

Further, Section 38 (2) of the Act provides that every municipality that fails to do every act and thing in its power to implement a report made to it by the Commission in connection with water works or sewage works is guilty of an offence and on summary conviction is liable to a penalty of \$500 for every day upon which such default continues after receipt of the report.

In connection with pollution abatement, the Commission will co-operate with any individual, municipality or industry with a problem in this connection. Each will be given an opportunity to work with the authorities whose aim is an abundant and clean water supply for the people of Ontario. However, if an offender fails to co-operate in a manner suggested by the Commission, it is the intention of the Commission to prosecute in court to attain its objectives.



Commission-Municipal

RELATIONSHIPS

The Commission is in a position to advise and aid municipalities in respect to all aspects of water supply and sewage disposal. In fact, no municipal works of this nature, or extensions or alterations to existing works may be undertaken without Commission approval.

Municipalities requiring water and/or sewage works may arrange for construction of such works themselves or they may ask the Commission to handle these projects. Those in the latter category benefit in numerous ways—planning, construction, financing and operation. For instance, the Commission will undertake responsibility for the engineering and construction, and then operate the works and maintain them in proper condition.

However, whether the water or sewage facilities are provided by the Commission or the municipality itself, the assistance of OWRC staff is always available.

No debentures have to be sold by the municipality which undertakes an agreement with the Commission for any project. The Commission finances the work through construction, and when the works are ready for operation the value of the asset is recorded and charged back to the municipality over an extended period of years by means of a sinking fund. Each annual payment by the municipality to the Commission is invested and the interest accumulating on this investment is credited to such a debt-retirement account.

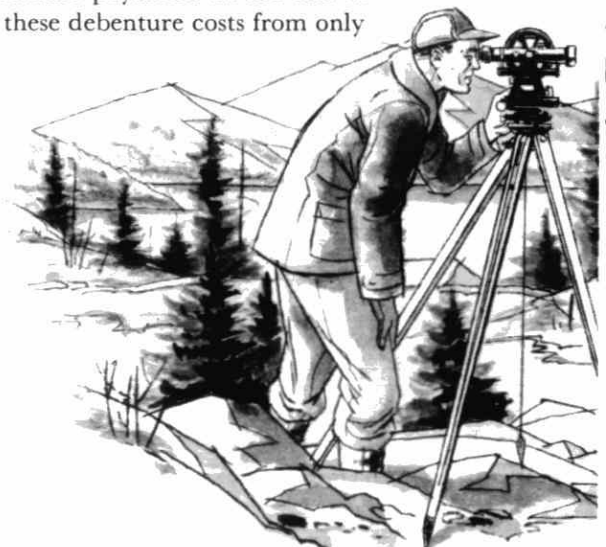




The actual rate of interest paid by the Commission on its total borrowings each year is charged to the municipalities associated with OWRC projects. A unique feature of this arrangement is that the rate of interest so charged a municipality is not fixed, but varies each year in accordance with the average rate of interest then applicable, and based on the Commission's total annual borrowings. This mass borrowing by a Commission with the backing of the Ontario Government tends to obtain lower interest rates for the benefit of municipalities involved in OWRC projects.

At the end of the period of the agreement between the municipality and the Commission, when the sinking fund with its accumulated interest has amounted to the debt outstanding, the works can be, at the option of either party, returned to the municipality. A reserve account to provide for special contingencies is maintained for each project, and any sum outstanding in this fund at the end of the period of agreement is returned to the municipality if the works are to be taken over by it.

The Commission can be of particular assistance to municipalities proceeding with a new system. Deferment of capital repayments may be arranged through the first few years on a basis of advantage to the municipality. In the opening years of a new water or sewage system municipalities usually find that users come into the system gradually, rather than all together at the outset. A municipality which faces debenture payments at the end of the first year may therefore have to recover these debenture costs from only





a few users. However, when the Commission postpones capital payment, and then, probably, introduces it gradually, there will not be as heavy a financial load on a system just getting under way.

It should be noted that it is possible for two or more municipalities to enter into a combined agreement with the Commission for construction of integrated water or sewage works. This, for example, is an economical way for inland municipalities to obtain water from distant sources via pipeline, or for adjacent municipalities to make use of a joint sewage disposal plant.

Another service of the Commission is the introduction, on request, for municipalities of complete water billing and control procedures. Commission staff, without cost to the municipality, make recommendations providing for a comprehensive and efficient accounting system for water works and sewage works operation. Technical advice is similarly provided, and the experience of the Commission's staff arising from their acquaintance with many varied systems throughout the Province makes this an important service.

The operation of works constructed by the Commission is under a staff of engineering specialists. A key feature of such arrangements, however, is the active participation of a local advisory committee appointed by the municipality itself to work with the Commission in the administration and operation of a project. This close co-operation has been found to be of the utmost importance and a most effective and satisfactory arrangement. All matters related to the undertaking are discussed with the advisory committee at regular meetings.



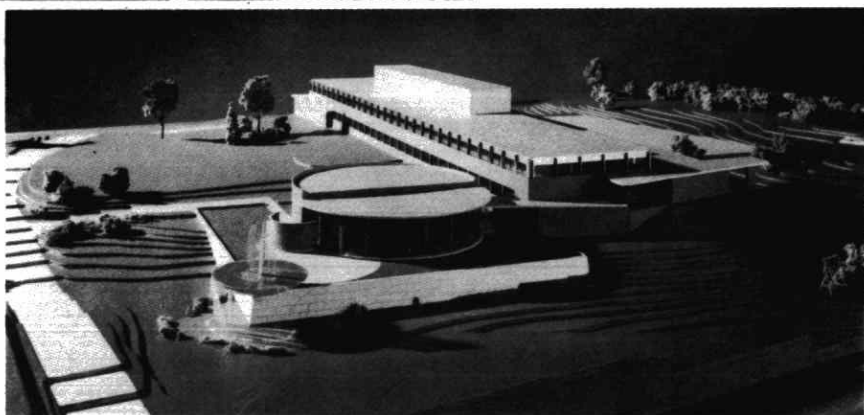
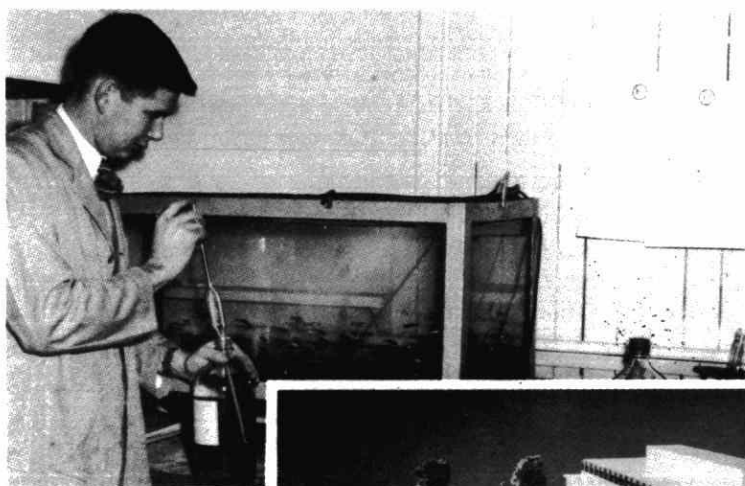
LABORATORY

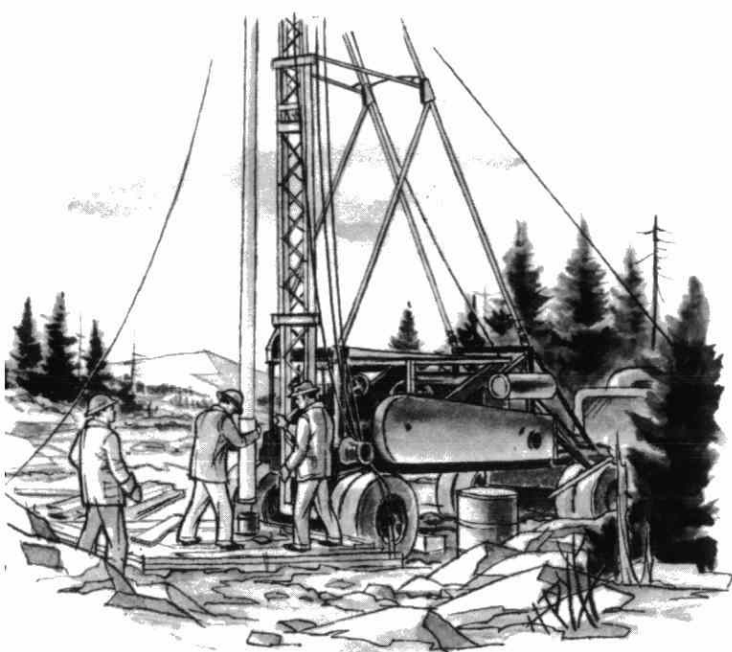
and Research

The OWRC operates laboratory and research facilities, and the main laboratory in Metropolitan Toronto is a key part of the Commission's efforts. Its active program includes routine water sampling and water testing procedures and examination of sewage and industrial waste specimens while much fundamental and applied research is carried on. For instance, research is carried on in connection with isolation and purification of the components of industrial wastes.

Close co-operation is maintained with other research institutions. A biological section is maintained for study of the effects of pollution on life in lakes and rivers, and a branch laboratory in Sarnia supplements the activities of the main laboratory.

All laboratory facilities are available to Ontario municipalities for improvement in efficiency and economical operation of water and sewage plants.





Ground Water

ACTIVITIES

Ground water is a major concern of the Commission, a special branch of which is continually collecting and assembling ground water and related geological data.

These data come from three main sources—records from water well drillers, measurement of observation wells and field surveys and investigations carried on by the Commission's ground water branch staff. Through this branch the Commission is co-operating with municipalities and others interested in public water supplies from ground-water sources. The nature of this co-operation varies from advice on well problems and the occurrence of ground water to supervision of the placing of test holes and field pumping tests.

This branch also makes provision for the annual licensing of the Province's water well drillers and for regulation of well-drilling operations.



About 40% of Ontario's population is dependent upon ground-water sources of supply. The demand for new sources of this nature is increasing in tempo as Ontario's population growth continues at a phenomenal rate.

Major Activities

OF THE OWRC

- Supervises the operation of all water, sewage treatment and wastes plants in Ontario, and lends technical assistance in this connection.
- Keeps close watch over stream pollution through examination of streams and sources of pollution. The Commission has the right of enforcement of any of its suggestions to individuals, industries or municipalities in this regard.
- Advises municipalities concerning their water requirements and their needs in connection with sewage disposal and treatment.
- Reviews plans and approves or disapproves of all water and sewage projects to be undertaken by municipalities or persons.
- Constructs, finances and operates water and sewage works for Ontario municipalities on request.
- Reviews plans and approves or disapproves of all industrial wastes disposal projects to be undertaken by industry.
- Operates laboratory and research services in connection with problems relative to the fields of water, sewage and industrial wastes.
- Carries on a continual search for new ground water sources.
- Licences Ontario's well drillers.
- Administers plumbing regulations throughout the Province.
- Disseminates information on problems in water supply and wastes disposal.

Technical operations of the Commission are divided into five divisions—

- Laboratory and Research
- Construction
- Plant Operation
- Sanitary Engineering
- Water Resources



ONTARIO WATER RESOURCES COMMISSION
EAST BLOCK, PARLIAMENT BUILDINGS, TORONTO

A. M. SNIDER
Chairman

DR. A. E. BERRY
General Manager